

Spartanburg County, South Carolina

1st, 3rd, and 5th Grade Students Body Mass Index (BMI) Report



2011-2012



Preface

According to the CDC, childhood obesity has more than tripled in the past 30 years and is a precursor to adulthood obesity. Because of the seriousness of this issue, Healthy People 2020 set the reduction of childhood obesity as one of its objectives. Research indicates that over half of all new obesity diagnoses in some population subgroups are being attributed to children under the age of 18. The CDC reports that obesity is a major risk factor for many severe diseases and conditions, including cardiovascular disease, certain types of cancer, and type-II diabetes. In addition to these life-long repercussions, childhood obesity is associated with lower life expectancies and increased health care costs.

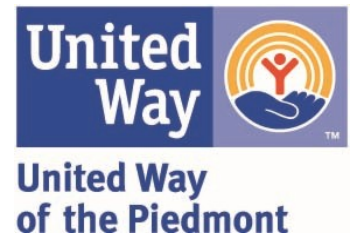
The South Carolina Joint Citizens and Legislative Committee on Children (JCLCC) was recently created by statute to research issues regarding the children of South Carolina, and to offer policy and legislative recommendations to the Governor and Legislature. The Committee recently identified 4 major focus areas which require serious consideration and action. Childhood Obesity is prominently featured as one of those areas. In their 2012 Annual Report, the JCLCC recommends that state and community-based efforts be implemented to improve children's nutrition and increase physical activity so as to stimulate healthy behaviors and lifestyles for our children.

In line with national and state statistics, Spartanburg County is also severely impacted by a childhood obesity epidemic. In an effort to address this alarming issue, a community task force was formed in 2008. The Spartanburg Childhood Obesity Task Force (SCCOTF) is comprised of a diverse group of partners representing active living and healthy eating non-profits, local hospitals, public health, schools, recreational organizations, foundations, institutes of higher learning, and community volunteers. The Task Force collectively crafted a goal with the objective of reversing the childhood obesity epidemic in Spartanburg County by the year 2015. The SCCOTF is supported by the South Carolina Eat Smart Move More Coalition, an organization that coordinates obesity prevention efforts across the state and leads the implementation of South Carolina's Obesity Prevention Plan.

Good for You, Spartanburg is a branding campaign created by the Spartanburg Childhood Obesity Taskforce to capture the broad-based grassroots, nonprofit, institutional, and governmental support for the development of a healthy Spartanburg County. This brand is expected to launch in the coming weeks. Businesses, schools, nonprofits, neighborhood associations, and more will be given the opportunity to become a partner in the effort.

The Spartanburg County School District Body Mass Index (BMI) project was implemented under the auspices of the Childhood Obesity Taskforce. Participating school districts included 1, 2, 4, 5, 6 and 7. Measurements were obtained from children attending Spartanburg public schools in 1st, 3rd and 5th grades. This vital assessment would not be possible without the cooperation, collaboration and dedication of the Spartanburg County School System. The Spartanburg County Childhood Obesity Task Force sincerely appreciates their commitment to this important project, and they are to be commended for taking a major step in a community-wide effort to address the problem of childhood obesity.

Spartanburg County Childhood Obesity Task Force Participating Organizations



Body Mass Index (BMI) - 1st, 3rd, and 5th Grade Students Spartanburg County, South Carolina

Introduction

The rising rate of childhood obesity¹ is a major public health threat for our children. Currently one-third (33.6%) of American children and adolescents are either obese or at risk of becoming obese². In order to assess the healthy weight status of students in Spartanburg County, body mass index (BMI) data were collected during the 2011-2012 school year. The purpose of this report is to highlight the percent of obese or overweight 1st, 3rd, and 5th grade students in Spartanburg County, South Carolina.

Methodology

Body Mass Index (BMI) is a number calculated from a person's weight and height. BMI provides a reliable indicator of body fatness for most people and is used to screen for weight categories that may lead to health problems.

BMI is calculated by multiplying a common conversion factor of 703 by weight in pounds (lb) divided by height in inches (in) squared. In other words,

$$BMI = 703 \times (Weight \text{ (lbs)} \div Height^2 \text{ (in}^2\text{)})$$

The weight status of children was determined by using growth charts developed by the Centers for Disease Control and Prevention. The growth charts show the distribution of BMI across a range of ages for a reference population. Children were classified as obese if their BMI-for-age was in the 95th percentile or above. Children were classified as overweight if their BMI-for-age was between the 85th and 94th percentile.

Demographic and health data were provided by selected individuals within each school district. Information Technology staff played a key role in consolidating data. Height and weight measurements were collected during the school year of 2011-2012. Several preliminary planning meetings were held, and coordinated in conjunction with a Mary Black Foundation Initiative featuring SPARK, a research-based program that promotes evidence-based Physical Education Health programs to teachers. SPARK 'Stars' were identified in each school district, and served as primary points of contact. In an effort to promote consistency, digital scales were provided, along with specific protocol on how to measure height and weight for each child.

Note:

83.4% of 1st graders were measured (2607 of 3125)

84.0% of 3rd graders were measured (2627 of 3129)

84.4% of 5th graders were measured (2648 of 3136)

Key Findings

- 33.4% of 1st Graders were obese or overweight.
- 38.0% of 3rd Graders were obese or overweight.
- 39.1% of 5th Graders were obese or overweight.
- Differences/Disparities exist between White, African-American, and Hispanic children.
- Differences/Disparities exist between socioeconomic status (SES) groups.

Conclusions

- Childhood obesity is a severe problem in Spartanburg County.
- Efforts should continue to monitor BMI in children.
- The community should be made aware of the situation in order to seek resources, implement evidence-based programs, and improve outcomes.

Actions for Prevention of Childhood Obesity³

Immediate actions involving stakeholders from multiple settings are needed to address the epidemic.

Local Governments

- Expand and promote opportunities for active living and healthy eating in the community through changes to ordinances, policies, capital improvement programs, and other planning practices.

Communities

- Provide opportunities for healthy eating and physical activity in existing and new community programs.
- Support legislation and other local and state-level action promoting healthy eating and physical activity.
- Seek resources in order to help implement and/or maintain programs to promote and support healthy eating and physical activity in the community.

Schools

- Implement school wellness policies that promote healthy eating and active living for both students and teachers.
- Improve the nutritional quality of foods and beverages served and sold in schools and as part of school-related activities.
- Routinely track BMI and offer appropriate counseling and guidance to children and their families.

Families

- Implement interventions to reduce the amount of time children spend doing sedentary activities such as viewing television, playing video games, and using a computer.
- Monitor and discuss BMI information with family health care providers.
- Engage in and promote healthy eating and active lifestyles together as families.

¹-*Obesity* is defined as a child who has a body mass index (BMI) for age at or above the sex-specific 95th percentile of the BMI charts developed by the Centers for Disease Control and Prevention (CDC) in 2000. *At risk for obesity* is defined as a child with a BMI for age at or above the sex-specific 85th percentile but less than the 95th percentile of the CDC BMI charts. In most children, a BMI level at or above the 95th percentile indicates elevated body fat that reflects the presence or risk of related chronic diseases.

²-Save the Children. *Change Program: Creating Healthy, Active, and Nurturing Growing-up Environments*. June 2007. www.savethechildren.org/newsroom/2007/rural-childhood-obesity

³- Institute of Medicine. *Preventing Childhood Obesity: Health in the Balance*. Report Brief, September 2004. <http://iom.edu/report.asp?id=22596>

1st Grade Report



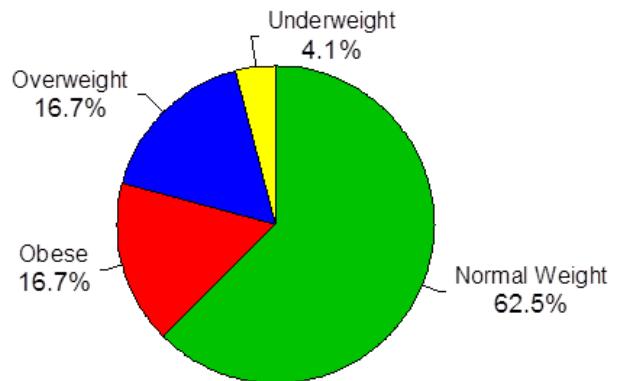
Spartanburg County 1st Graders

Weight status:

- 4.1% of 1st graders were underweight.
- 62.5% of 1st graders were in the normal weight range.
- 16.7% of 1st graders were overweight.
- 16.7% of 1st graders were obese.

Percent of children by weight status

Spartanburg County First Grade - 2607 Students



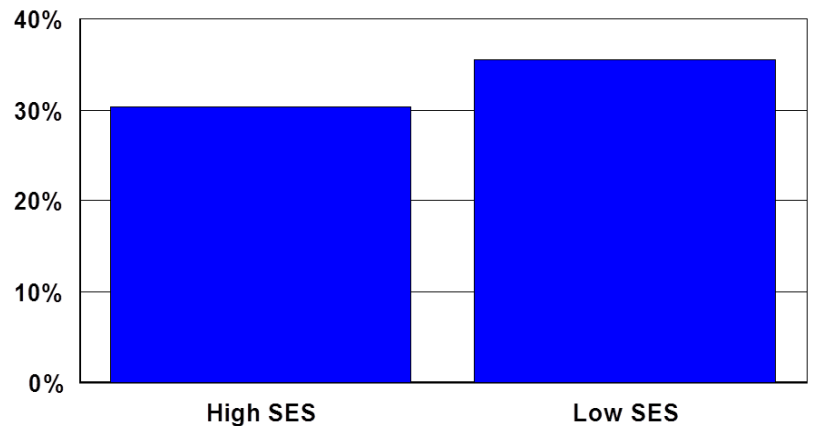
Underweight: BMI-for-age < 5th percentile
Normal: BMI-for-age 5th-<85th percentile
Overweight: BMI-for-age 85th-<95th percentile
Obese: BMI-for-age ≥ 95th percentile

Disparities in Obesity/Overweight by Socioeconomic Status

- Children from low SES households were more likely to be obese or overweight.
- Children from high SES households were less likely to be obese or overweight.

Percent of children who were obese or overweight by SES

Spartanburg County - First Grade

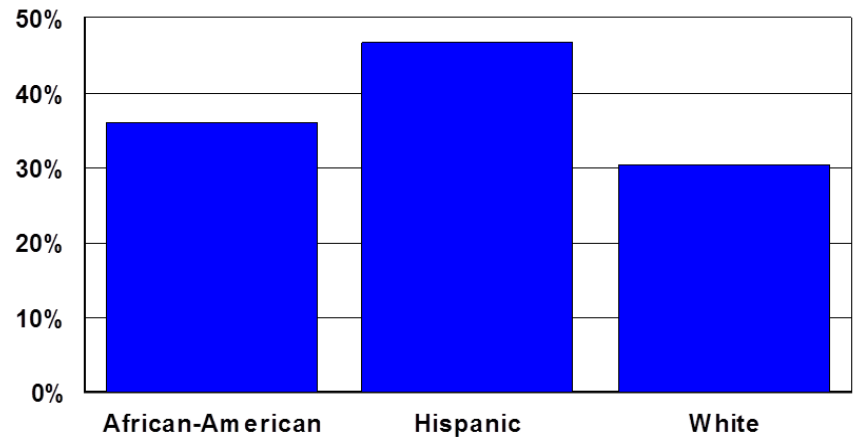


Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile
† Based on Free and reduced School Lunch Program eligibility

Disparities in Obesity/
Overweight by Race/
Ethnicity

- Hispanic children were most likely to be obese or overweight.
- White children were least likely to be obese or overweight.
- African-American children were more likely than White children but less likely than Hispanic children to be obese or overweight.

Percent of children who were obese or overweight by Race/Ethnicity
Spartanburg County - First Grade



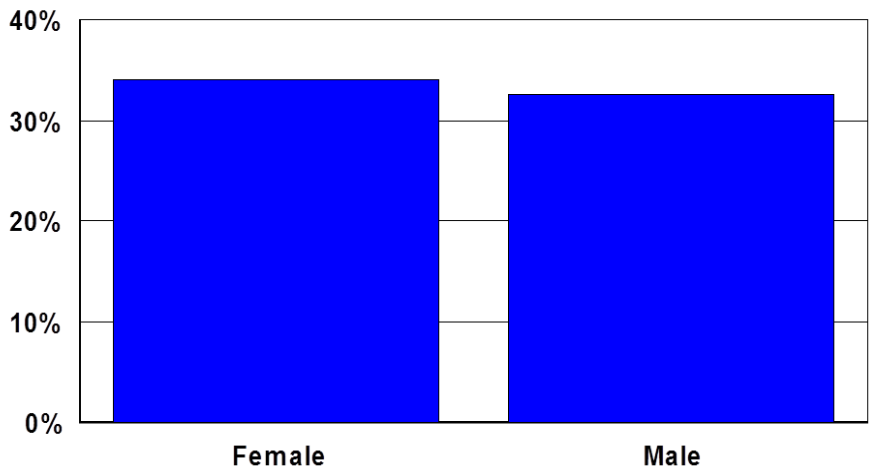
Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile

* For statistical reasons Race/Ethnic groups comprising <4% of the data were not included. These groups/individuals are included in all other parts of the report.

Disparities in Obesity/
Overweight by gender

- Females were more likely to be obese or overweight.
- Males were less likely to be obese or overweight.

Percent of children who were obese or overweight by gender
Spartanburg County - First Grade



Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile

3rd Grade Report

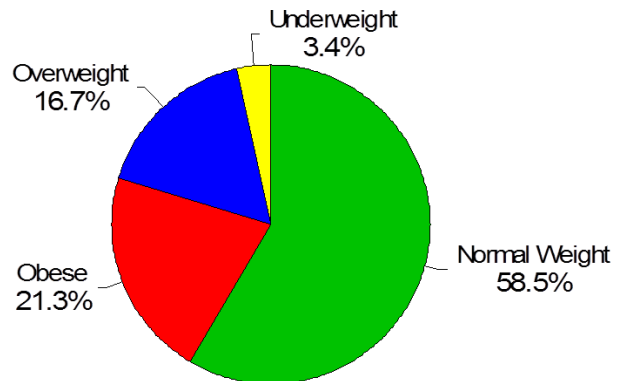


Weight status:

- 3.4% of 3rd graders were underweight.
- 58.5% of 3rd graders were in the normal weight range.
- 16.7% of 3rd graders were overweight.
- 21.3% of 3rd graders were obese.

Percent of children by weight status

Spartanburg County Third Grade - 2627 Students



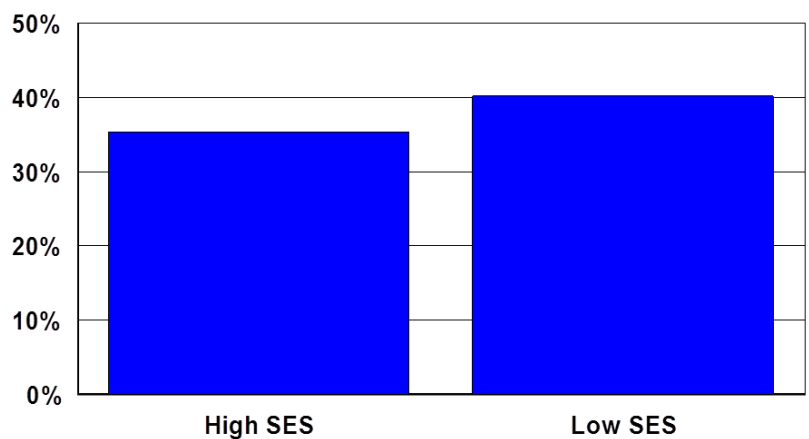
Underweight: BMI-for-age < 5th percentile
Normal: BMI-for-age 5th-<85th percentile
Overweight: BMI-for-age 85th-<95th percentile
Obese: BMI-for-age ≥ 95th percentile

Disparities in Obesity/Overweight by Socioeconomic Status:

- Children from low SES households were more likely to be obese or overweight.
- Children from high SES households were less likely to be obese or overweight

Percent of children who were obese or overweight by SES

Spartanburg County - Third Grade

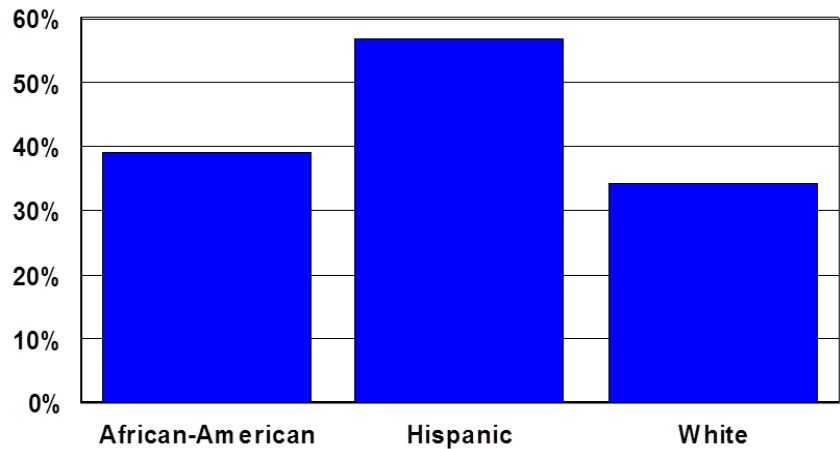


Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile
† Based on Free and reduced School Lunch Program eligibility

Disparities in Obesity/ Overweight by Race/ Ethnicity

- Hispanic children were most likely to be obese or overweight.
- White children were least likely to be obese or overweight.
- African-American children were more likely than White children but less likely than Hispanic children to be obese or overweight.

Percent of children who were obese or overweight by Race/Ethnicity
Spartanburg County - Third Grade



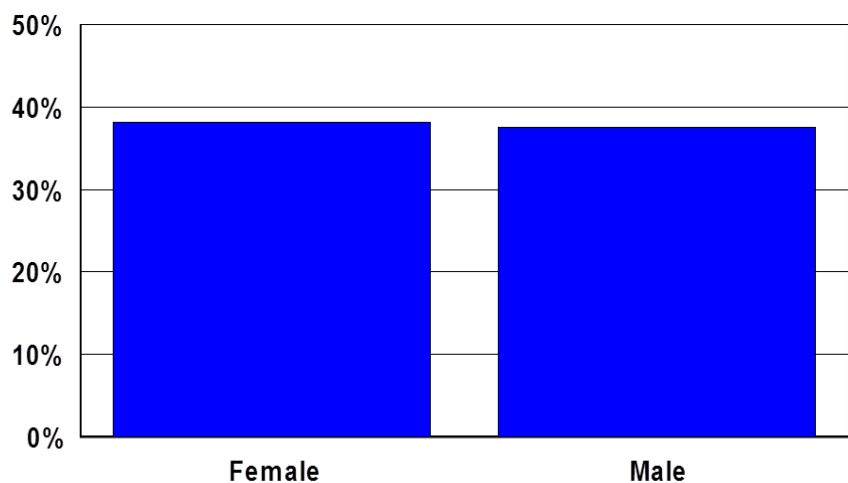
Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age \geq 95th percentile

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Disparities in Obesity/ Overweight by gender

- Males and Females were almost equally likely to be obese or overweight, with percentages being slightly higher for females than for males.
- Males were only slightly less likely to be obese or overweight than females.

Percent of children who were obese or overweight by gender
Spartanburg County - Third Grade



Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age \geq 95th percentile

5th Grade Report

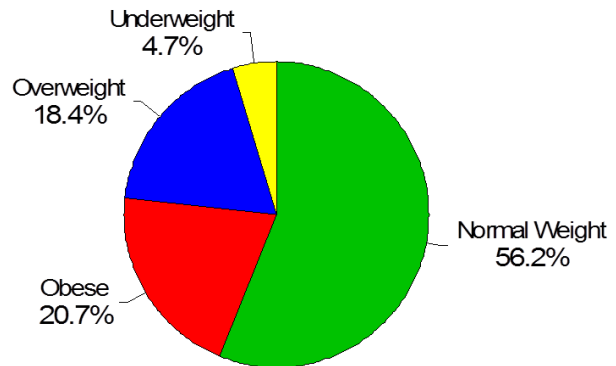


Spartanburg County 5th Graders

Weight status:

- 4.7% of 5th graders were underweight.
- 56.2% of 5th graders were in the normal weight range.
- 18.4% of 5th graders were overweight.
- 20.7% of 5th graders were obese.

Percent of children by weight status
Spartanburg County Fifth Grade - 2648 Students

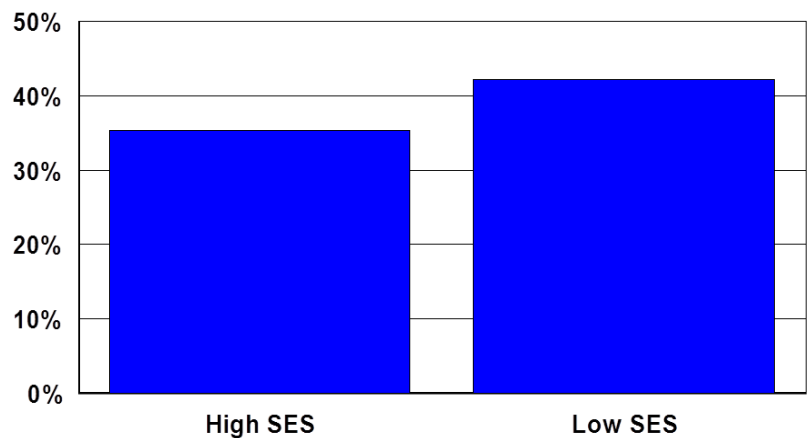


Underweight: BMI-for-age < 5th percentile
Normal: BMI-for-age 5th-<85th percentile
Overweight: BMI-for-age 85th-<95th percentile
Obese: BMI-for-age ≥ 95th percentile

Disparities in Obesity/Overweight by Socioeconomic Status

- Children from low SES households were more likely to be obese or overweight.
- Children from high SES households were less likely to be obese or overweight

Percent of children who were obese or overweight by SES
Spartanburg County - Fifth Grade

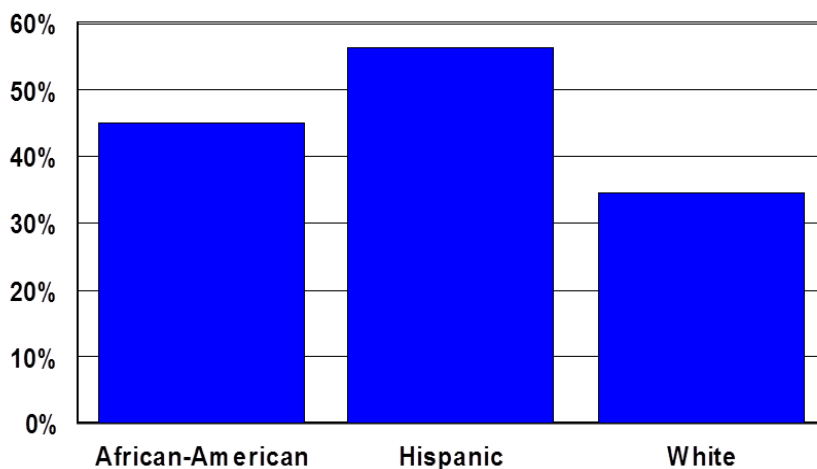


Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile
† Based on Free and reduced School Lunch Program eligibility

Disparities in Obesity/ Overweight by Race/ Ethnicity

- Hispanic children were most likely to be obese or overweight.
- White children were least likely to be obese or overweight.
- African-American children were more likely than White children but less likely than Hispanic children to be obese or overweight.

Percent of children who were obese or overweight by Race/Ethnicity
Spartanburg County - Fifth Grade



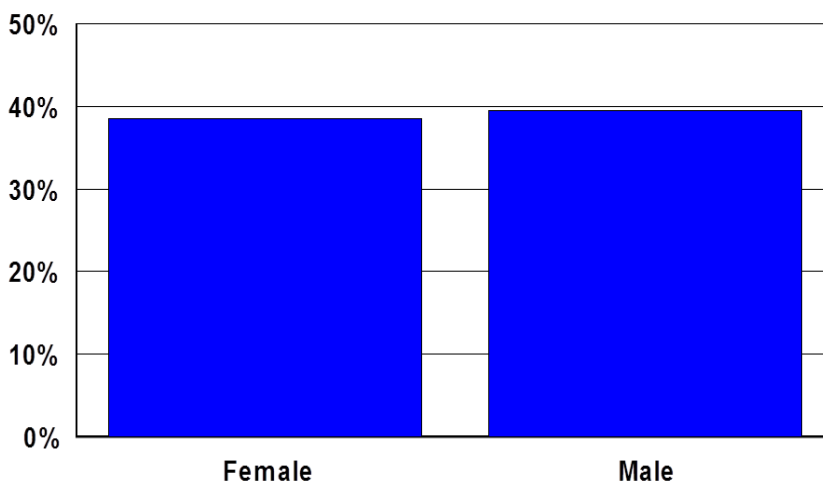
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Disparities in Obesity/ Overweight by gender

- Males and Females were almost equally likely to be obese or overweight, with percentages being slightly higher for males than for females.
- Females were only slightly less likely to be obese or overweight than males.

Percent of children who were obese or overweight by gender
Spartanburg County - Fifth Grade



Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age \geq 95th percentile